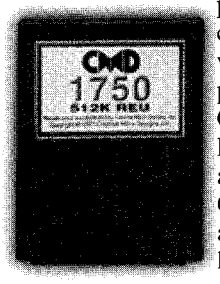
LOADSTAR LETTER #46

New REUs From CMD

From WWW.CMDWEB.COM. CMD announced online that they have produced a limited number of CMD brand REUs. If you use programs like GEOS, Pocket Writer, NovaTerm or any of a number of other applications that support a Commodore REU, then you may be missing out on powerful and convenient features that will speed your productivity. With Commodore REUs no longer in production, and even the SSI 1750 Clone no longer being available, many users haven't had a choice until now.



CMD's new 1750 and 1750XL REUs work with every program that supports any of the Commodore REUs. The CMD 1750 offers 512K of DMA controlled high-speed fast page mode RAM, while the CMD 1750XL provides a whopping 2 Megabytes for programs with extended REU support (NovaTerm 9.6, ACE, GEOS and others). Both models incorporate Commodore's REC Controller chip to provide guaranteed compatibility. And both come in a standard size cartridge, much smaller than a Commodore REU. Our units also draw less power, which means longer life for your power supply.

Sadly, CMD's ability to produce these devices is limited due to the number of Commodore REC chips they were able to purchase, so these products will only be available while supplies last. If you want to get your hands on one of the highest quality Commodore-compatible REUs ever made, you'll need to act quickly.

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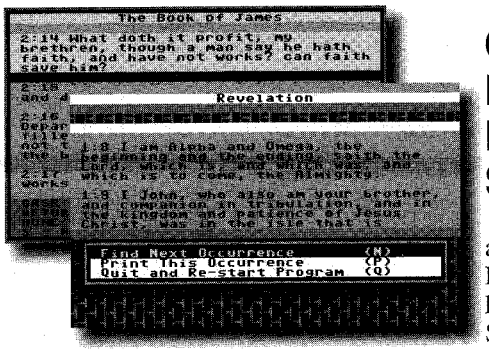
Old Testament Shipping. Entire Bible Finally On Disk

First there was The Compleat New Testament On Disk and now there's the Compleat Old Testament, available from J&F Publishing. The Compleat Old Testament arrives on nine 5¼-inch disks or three 3½-inch disks, with a 3 megabyte payload of scripture plus search tools to help you find the scripture you're looking for. It operates best if all the files are file copied to a single partition on a CMD hard drive or RAMLink, but works great, albeit with disk swapping on any type of system. SuperCPU optimized for fast searches through multiple books. Export text to Edstar files (Edstar Included!)



Include accurate excerpts from The Bible in your presentations and letters because this product is designed to export the scriptures you need. Each book of the Old Testament is broken into highlights so that you can easily find key passages by name such as The Ten Commandments, The Walls Of Jericho and Daniel in the Lion's den.

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New Testament on 5¼-inch disks, #0042D5 $20.00. New Testament on 3½-inch disk #0025D3 $20.00.

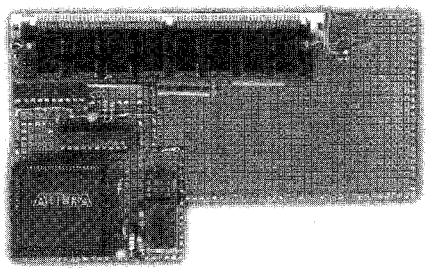
Star Extra #3 Comes With a Load Of Source Plus Nate's Utilities

Star Extra #3 has sat, done, on my desk for about two weeks now. This may sound like a paradox, but I've never seen so much of my own source code. The source spans three 1541 disks. This is everything from the simplest header files to my most complex toolboxes. Binary files included too, this package is at least as important as the Compleat Programmer for all those interested in advancing their machine language skills. For a list of contents, see LOADSTAR #157.

Star Extra #3 on 3½-inch disks, #0031D3 $12.00. Star Extra #3 on 5¼-inch disks, #0048D5 $12.00

CMD Soon To Release Ram Expansion Cards For SuperCPU

By Jeff Jones. The SuperCPU can address 16 megabytes of RAM, not as an REU, but as real contiguous RAM. CMD has designed an upgrade card for the SuperCPU that will work on both the C-64 and C-128 models. With these cards installed you will be able to add one standard 72-pin SIMM available *everywhere* in 1MB, 4MB, 8MB and 16MB sizes.



Scan Of Prototype

With this extra RAM we're sure to see C-64 applications written with more power and speed. For the longest time we've been able to unzip files, but never had enough memory to create a zip file. With the expander card, that routine will finally be written.

This isn't an REU. It's actually

better since Machine language routines written to access the RAM can simply index it instead of asking a device to copy in into usable space. This will change the face of Commodore 8, er, 16-bit programming.

Improving GeoPublish Part Two

By Bruce Thomas. So you read the first portion of this series and said to yourself "What's the point?" Moving Guidelines and setting gutters just seemed like extra work, and no editor needs more work. Well, this is true but those little changes allow you to get more

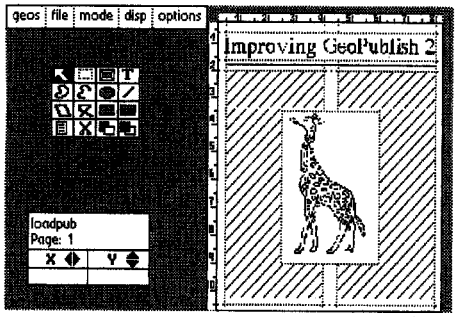


Figure 1: Place graphic into its own region on the page

information on each page. There is another geoPublish trick that also allows more info on your pages and we'll take a look at this method now.

If you have been around the 64 scene for any length of time you may remember

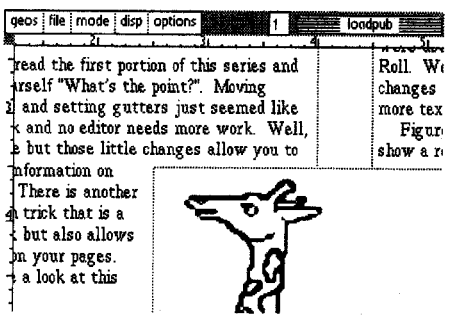


Figure 2: Graphic within region and separate guidelines

when Berkeley Softworks ran fancy ads in all of the C= magazines. With the introduction of GeoPublish this trend continued and brought us one ad in particular that I felt displayed a flaw in the way geoPublish handles text and graphics (or at the least in the way in which people placed text and graphics).

Following along through the tutorial from part one we get to the point where it is time to add the graphic image. The prescribed method is to go to Page Layout Mode and create another region with the Open Region tool. This works fine if your image is of a blocky type, as the text re-formats around the region, but leaves lots of empty space if you are using an odd shaped picture.

This brings us back to the Berkeley ad I mentioned above which featured a giraffe in the middle of two columns of type. Looking at the ad you can see the same poor guideline settings were used as the tutorial suggests for the Jelly Roll. We will redo this ad to incorporate all of the changes discussed so far and show just how much more text can fit on a page.

Figure 1 (preview mode) & Figure 2 (zoom mode) show a reasonable facsimile of the original ad. The basic layout was created using the Master Page '2C Divider' Library file and the Page Layout '2C Title U' Library file. After some manipulation of the guidelines and regions I had the desired layout and was able to import my graphic (a Giraffe from The Newsroom publishing package by Springboard). I poured this article into the text regions, added the headline and separator graphic and had a completed page in no time flat. The screen captures were made with GeoWizDump and the thumbnail image (Figure 3) was created with (surprise!) Thumbnail from RUN's GEOS Power Pak disk after printing the 'Publish page to disk with the Paint Pages printer driver.

Following my own advice I used Roma for the text and Mega Roma for the headline. This method allows a newsletter page to be laid out with very little effort and in a very short time. It does, however, waste a lot of space on your page and may lead to your newsletter taking up more pages than it needs.

To get around this we will do two things. First, we will not use the Library files that came with 'Publish but create our own Master Page and Page Layout templates. Second, we will not create a region for the graphic but will utilize the paragraph formatting of the 'Publish Editor to flow the text around our images.

This takes a lot of careful planning and counting but will greatly reduce the amount of wasted space around your images. There is also a lot of mode swapping as you must go from Editor to Graphics mode and back to get the fit you want.

Let's start by creating a new document and go to Master Page mode. Set your horizontal guidelines at 1/2", 2" and 10 1/2". Set Vertical Guidelines at 1/2", 4 1/4" and 8". Go to Page

Figure 3: Thumbnail image of page with graphic in a region.

Figure 6:Thumbnail with graphic placed without a region

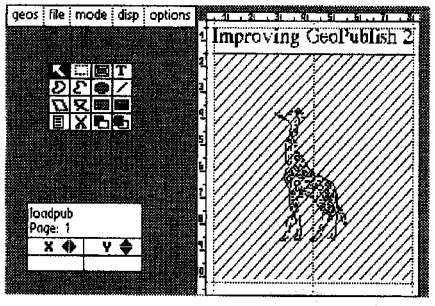


Figure 4: Place your graphic in page graphics mode without a region

Layout Mode and choose the Options Menu. Select Set Gutters and make your Left and Right Gutters 10. Now make the three regions needed for the Headline and text.

You can import your text by selecting the 'T' icon in the toolbox and adding it to the two regions. Now choose Page Graphics mode and add the title. Select the 'T' icon and choose the

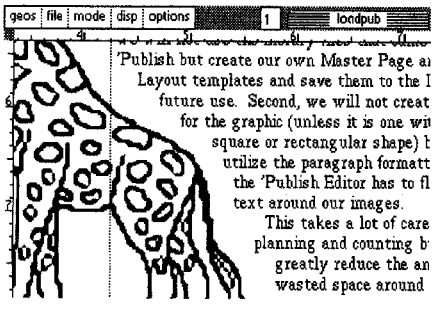


Figure 5: text around the graphic manually

font, size (about 80) and other attributes you desire. I generally choose Center for the text and make the box the size I want (in this case from side to side) so the text will not get cut off. Add the underline somewhere between the bottom of your headline and the guideline at the 2" mark.

Make sure your picture is in a photo scrap and choose the Bitmap Placement Tool. Move into the middle of the page and place your graphic. You can now select it (with the Arrow tool), go into the Attributes and resize it however you wish (select Stretched & Scaled and make it a good size). To match our faux ad I am going to stretch it down from 3

1/2" to the 9" mark and from about 2 3/4" to 5 3/4" on the horizontal scale (Figure 4).

Now is when you need to get a piece of paper beside you and get ready to count. Go into Zoom mode and locate the top of your image. Make note of the line of text directly above the graphic - you will want to make this the end of a paragraph. Make note also of the ruler position of the left edge of the graphic - you will set the Right Margin of the new paragraph 1 or 2 ruler notches short of this. Now, scroll down the page and count how many lines of text the graphic is tall - this is how many lines you need at that margin setting.

At present we are only looking at the left side of the graphic. We want to go into Editor mode and make the changes to our margins in the left column (you will need to reset the 'p' marker for indents as well as adjusting the right margin for as many lines as you counted). This will change the positioning of the text in the right column (as things move down) so we will have to go back to graphics mode. Once you are back in graphics mode scroll down the left side of the graphic and make sure your text lines up as you want (if it doesn't, go back to the Editor and make adjustments). The left column must be left alone once you start working on the right column.

Once you are happy with the left side start at the top of the image again and work down the right side. You will be counting the lines of text and deciding where to set the left margin of your text this time (Figure 5).

I know that this may sound like a lot of work but, once you've done it a few times, you will find it quite easy to do with very little mode swapping. You will also find that, if your graphics are odd shapes like our giraffe, you can fit a lot more text on the page (compare Figure 6 with Figure 3). Your graphics will appear to be part of the page instead of looking like a separate island.

Two very useful utilities for geoPublish users are Toolkit (by Rick Kranz) and GetItWrite V2.0 (by Joseph Thomas). Toolkit allows you to make font and ruler changes in your entire document and so avoid the pain of printing a page with one section in BSW 9 point. GetItWrite will check your disk and tell you if all of the text files needed for your 'Pub document are on the disk. This is very handy if you copy your files to an REU and want to make sure you have them all before firing up 'Publish. You can also change the name of a GeoWrite document and update the 'Pub file at the same time.

GeoPublish is such a powerful program that it takes a long time to learn how to use all of its features. Hopefully these articles have helped show a couple of methods to improve your creations and save space at the same time. While it will still take time and practice to get good at using these methods I hope that they will inspire you to come up with some of your own geoPublish Improvements.

SuperCPU Usability Reviewed in Usenet

By Roger J. Long. If you run productivity (word processing, etc.) programs, it works great. If all you do is play games, then it's a mixed bag. There are several things that you run into when playing games on it.

- COPY PROTECTION. THE MORE MODERN PROTECTION METHODS ARE TIMING-SENSITIVE. YOU MAY HAVE TO SWITCH TO NORMAL MODE ANY TIME THE DRIVE IS ACCESSED, THEN BACK UP TO TURBO MODE WHEN IT'S DONE.
- IF THE PROGRAM IS INTERRUPT-DRIVEN, YOU WON'T SEE ANY SPEED INCREASE.
- IF THE PROGRAM DOES ITS TIMING BY LOOPS, EVENTS WILL HAPPEN TOO FAST FOR YOU TO REACT TO.
-

Elite: Can be loaded by either putting it in Normal mode and loading with Elite's fast loader, or by putting it in Turbo mode and not using the fast loader. Music is interrupt-driven, so plays at regular tempo regardless of which mode it is in. Graphics are sped up by over a factor of 10, making combat impossible to manage. However, it is still a good candidate for the SuperCPU. There are times in the game when you are travelling to a planet and there are several non-hostile ships around you. The game slows down because it is tracking those ships and getting to the planet can take over 15 minutes. So, I use the Normal mode to play the game and Turbo mode to cut down on the inter-planet travel time.

Monopoly: The Turbo mode yields about a 5x graphics AND sound increase. Makes the game more enjoyable to play because you are not waiting for the pictures of the dice or the properties to scroll by. (The properties can be turned off.)

Where the SuperCPU really shines is when running something that takes a long time to complete, and several productivity programs fall into that category. Examples:

GEOS: It uses the high-res screen to draw all its screens, which slows things down. The worst case is GeoWrite. It is possible to type faster than GeoWrite can display what you type. If it has to switch screens to the other side of the page, it takes a few seconds. If it has to do that *and* scroll the screen up, a ten second wait is about average. With the SuperCPU, GeoWrite reacts instantly in all cases. You can scroll down the full page in about 2 seconds, and back up in about 3 or 4.

GeoPublish is also pretty processor-intensive. The cover of our newsletter usually has two small (3/4 inch) graphics, three lines of text drawn with a MegaFont at 48 points, five smaller sections of text, and at least one larger piece of clip art. Time to display in preview mode is about 65 seconds. Time to display in Turbo mode is 4 seconds. Printing in GeoPublish also takes a while to print. It does a little bit of printing, then thinks about it, then does some more. Time to print a page, using the GeoCable II parallel print cable and a Canon BJ-200ex 24-nozzle bubble jet printer is 15-20 minutes. In Turbo mode, those thinking times are instantaneous, so print time is 5-8 minutes. In this case, it's the speed of the printer that limits the print time. (But, it's better than my old printer. At 240x216 resolution, print time was 70 *minutes* per page.)

I use a RAM Expansion Unit (REU), which speeds things up, but adding the SuperCPU makes it work even better. Even loading programs off the drive is faster.

Multiplan 1.07, published by Epyx. Had to be in Normal mode to load the program due to copy protection, but once up and running, any further disk accesses would work in Turbo mode. Calculating a simple spreadsheet took about 15 seconds in Normal mode, and 2 in Turbo mode.

Issues of LOADSTAR The file reader shifts through pages instantaneously. Pages also seem to load in a bit quicker. Music speed isn't affected.

Displaying Mandlebrot graphics. Normally, it takes over 8 hours to display one picture. (We let it run overnight and came back to it the next day.) In Turbo mode, it took just over 1 hour. Note from Jeff: Our Mandlebrot Microscope and Julia set programs, written in machine language, don't take hours to render an image. It's more like minutes, and with the SuperCPU they're even faster.

I also have the C64S emulator on a Pentium-150 (was a 133 until I changed the bus speed from 66MHz to 75MHz). The maximum speed increase I've seen out of it when running a program is only about 4x. However, it doesn't seem to be able to handle interrupt-driven events properly. In

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FOR MORE INFORMATION CALL 541-496-2234

Elite, the music is sped up, instead of just the graphics. A setting of 800% seems to be equal to full speed of a regular C64. Setting it to Maximum is variable as to how much faster it goes. And, the music is sped up as well.

Roger J. Long, editor for the SWAMI (Amiga) and TC-Cubed (C64/C128) clubs of southeast Washington State. longrj@wwics.com http://www.wwics.com/~longrj/

Looking for places in the U.S. and Canada that still support the C64? Over 130 of them can be found on my web site.

Programming the SwiftLink Cartridge

by Robin Harbron. The SwiftLink is yet another cartridge that can be plugged into our trusty computers. It adds a 6551 ACIA to your arsenal of programmable chips. ACIA stands for Asynchronous Communication Interface Adapter, and it does just that: allows your computer to interface with communications devices, such as a modem.

The Commodore 64 wasn't blessed with an efficient way of communicating with a modem at its birth. This was apparently a cost-cutting measure. A 6551 was partially emulated in the 64's kernal. But emulation is generally a time-consuming thing. It simulates hardware with software. Instead of being able to send a byte to your communications hardware, and letting the hardware send it out bit-by-bit, the kernal had to do the work itself.

When 300, and then 1200 BPS (bits per second) modems were common, this didn't seem to be such a limitation. But 2400 was a bit of a hurdle for programmers to handle well, and beyond that seemed pretty much impossible. The SwiftLink and other similar cartridges allow us to keep pace with the newer modems. Mine happily sits plugged into my U.S. Robotics 33.6 Faxmodem. 33.6 is short for 33.6K, or 33600 BPS, 112 times as fast as my original 64modem!

Unfortunately, it's a little more difficult to talk to a modem plugged into the cartridge port. BASIC and the Kernal still want to talk to the old user-port modems, so we have to resort to PEEKs and POKEs instead of the more user-friendly OPEN and PRINT# commands.

When first learning to program the SwiftLink I wrote a short basic program to hack around with. It is pretty much capable of 300 BPS with a normal C64, and seems to do a fairly reliable 4800 with the SuperCPU on. Pretty amazing, to be able to go that fast in BASIC!

I don't own one yet, but apparently CMD's new Turbo232, which recently replaced the SwiftLink, is backwards compatible. This program should work fine with the T232.

Here's the program, an extremely simple terminal, interspersed with my comments:

```
10 POKE 53374,0 : POKE 53366,0 :
POKE 53375,0
```

Enables the SuperCPU BASIC optimization mode. Not necessary if you don't have a SuperCPU, but it should be common practice if you'll be sharing your programs with those who do have one.

```
20 SW=56832
```

This is the base address of the SwiftLink. In hex, this is $DE00, one of the two I/O pages that were left free for expansions such as this. You may have $DE00 occupied by another device. If this is the case, $DF00 can be used. Change the value of SW to 57088.

```
30 POKE SW+2,11
```

There are four registers in the SwiftLink, numbered 0 through 3. These are normally located from $DE00 to $DE03. SW+2 refers to the Command Register. This is used to control how the SwiftLink acts while sending and receiving data. Here is the meaning of the various bits:

7-5 Parity Check. This is rarely used nowadays. "None" will suit us just fine, so we'll store zeros here.

4 Normal/Echo Mode for Receiver. Normal if set to 0, as we'll do. If set to 1, bits 2 and 3 must be set to 0, and the receiver will echo, i.e. send back whatever it receives.

3-2 We don't want interrupts to happen when the SwiftLink is ready to send a byte, as we're going to be using the simple polling method of communicating with the SwiftLink. So we'll store a 10 in these bits. If we did want interrupts to happen whenever the SwiftLink was ready to send, we would set a 01 here.

1 If we want an interrupt to occur whenever a byte arrives to our computer, we set this to 0. We don't want an interrupt to happen, so we'll set this to bit to a 1.

0 If we want to refuse data for a while (perhaps we've received more information than we can deal with for a while, or want to do disk access) we can set this bit to 0. We'll be setting it to 1, to enable receiving.

```
40 POKE SW+3,21
```

SW+3 is the Control Register of the SwiftLink. This is used to select the various modes of operation of the 6551. The meanings of the various bits follow:

7 Stop Bits. We'll set this to 0, meaning we want one stop bit. This is standard practice today. Stop bits are bits

(Continued on page 6)

Everything You Wanted To Know About Commodore BBSs

Telephone #	Name	Baud	Notes
318-687-0028	Centsible Systems BBS	14.4	24hr-NET-UD-MSG-DAT-GAM-CBM
209-754-1363	Silicon Realms	2400	24hr-NET-UD-MSG-DAT-GAM-RPG-CBM
619-390-0351	Golden Reef	2400	24hr-NET-UD-MSG-GAM-RPG-CBM
619-390-7483	Dream Factory	2400	24hr-NET-UD-MSG-GAM-RPG-CBM
901-584-2588	CAMDEN TN BBS	1200	24hr-NET-UD-MSG-GAM-CBM
602-849-2892	Desert Oasis	2400	24hr-UD-MSG-CBM
402-393-2985	greater Omaha comm users	2400	24hr-UD-MSG-RPG-CBM
817-690-0494	Kevin's Info Board	2400	P/T-UD-MSG-GAM-RPG-CBM
805-382-1125	Civic 64/128 UG BBS	9600	24hr-NET-UD-MSG-GAM-CBM
718-359-8491	The Unknown Cave	14.4	24hr-UD-MSG-DAT-GAM-RPG-CBM
718-655-5642	Rowdy's Revenge	2400	24hr-UD-MSG-GAM-CBM
718-849-4794	USS Enterprise	2400	24hr-UD-MSG-DAT-GAM-RPG-CBM
718-320-0726	Quantum Link II	1200	P/T-UD-MSG-RPG-CBM
708-585-5944	Time Lords BBS	14.4	24hr-NET-UD-MSG-DAT-GAM-RPG-CBM
609-451-7485	C= Support Center	14.4	24hr-NET-UD-MSG-CBM
716-366-5345	Mutant's Realm	2400	24hr-UD-MSG-GAM-CBM
309-793-4765	Archive BBS	2400	24hr-UD-MSG-GAM-CBM
305-258-5039	Diamondback BBS	2400	24hr-NET-UD-MSG-GAM-CBM
519-969-9447	MF's Playhouse	2400	24hr-NET-UD-MSG-GAM-CBM
717-236-1596	Alpha Centauri	2400	24hr-UD-MSG-DAT-GAM-CBM
360-384-4704	Future Mountain NW	14.4	24hr-NET-UD-MSG-GAM-CBM
318-425-4382	LOADSTAR Disk	2400	24hr-NET-UD-MSG-CBM
713-852-7028	Powerhouse BBS	14.4	24hr-NET-UD-MSG-GAM-CBM
201-460-7955	Hidden Empire	2400	24hr-NET-UD-MSG-DAT-GAM-CBM
803-666-7474	LV-426	14.4	24hr-NET-UD-MSG-GAM-CBM
941-656-5613	Kapital K'pers BBS	2400	24hr-NET-UD-MSG-GAM-CBM
405-793-9892	Meg II's Altitude	2400	24hr-NET-UD-MSG-GAM-CBM
916-743-4100	Power In The Blood	2400	24hr-NET-UD-MSG-GAM-CBM
614-522-6563	Cygnus X-1	2400	24hr-NET-UD-MSG-GAM-CBM
813-986-6786	Magic's Realm	2400	24hr-NET-UD-MSG-GAM-CBM
810-687-2101	The Falcon's Claw	2400	24hr-NET-UD-MSG-GAM-CBM
810-258-9864	Starfleet Command	2400	24hr-NET-UD-MSG-GAM-CBM
813-839-0240	The Raven's Nest	2400	24hr-NET-UD-MSG-GAM-CBM
905-668-7347	The Deadworld	2400	24hr-NET-UD-MSG-GAM-CBM
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941-656-0658	The Texas Cafe	2400	24hr-NET-UD-MSG-GAM-CBM
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406-232-4927	The Eagles Nest	2400	24hr-NET-UD-MSG-GAM-CBM
407-951-8431	Postman's BBS	2400	24hr-NET-UD-MSG-GAM-CBM
309-764-7084	Get It Here BBS	2400	24hr-NET-UD-MSG-GAM-CBM
207-646-1157	Golden Coastal BBS	2400	24hr-NET-UD-MSG-GAM-CBM
303-745-7018	7 Eleven BBS	2400	24hr-NET-UD-MSG-GAM-CBM
610-834-9694	The Mailbox	14.4	24hr-NET-UD-MSG-DAT-GAM-CBM
702-399-2415	First Blood BBS	2400	24hr-UD-MSG-GAM-CBM
901-423-0987	GUNSMOKE HIDEOUT	2400	24hr-MSG-CBM
607-735-0469	TOWER BBS	14.4	24hr-NET-UD-MSG-DAT-GAM-CBM
904-284-2175	The Boiler Room	14.4	24hr-NET-UD-MSG-DAT-GAM-CBM
813-988-8358	World Of Production	14.4	24hr-NET-UD-MSG-GAM-RPG-CBM
903-839-3668	Black Iris	2400	24hr-NET-UD-MSG-GAM-CBM
901-422-5188	GUNSMOKE HIDEOUT	2400	24hr-UD-MSG-CBM
813-254-3799	The Lighthouse BBS	2400	24hr-UD-MSG-GAM-CBM
405-681-8119	Meg-O-Mania One	2400	24hr-NET-UD-MSG-GAM-CBM
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313-934-6461	The 64 Connection	2400	24hr-NET-UD-MSG-GAM-CBM
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201-845-8250	Cave Of The Cerberus	2400	24hr-NET-UD-MSG-GAM-CBM
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315-458-2824	Recruiter Station	2400	24hr-NET-UD-MSG-GAM-CBM
602-827-2706	The Twilight Zone	14.4	24hr-NET-UD-MSG-GAM-CBM
206-775-9953	Twisted Sky	14.4	24hr-NET-UD-MSG-GAM-CBM
206-536-9953	OMNI World	14.4	24hr-NET-UD-MSG-GAM-CBM
304-697-0101	The Inner Circle	14.4	24hr-NET-UD-MSG-GAM-CBM
702-673-2927	Sunlight	14.4	24hr-NET-UD-MSG-GAM-CBM
804-474-2562	Spide's Web	14.4	24hr-NET-UD-MSG-GAM-CBM
804-452-9652	Masters Castle	14.4	24hr-NET-UD-MSG-GAM-CBM

CBM: Commodore 64/128 System **NET:** Networked **UD:** File Transfers
RPG: Role Playing Games **MSG:** Message Bases **GAM:** Online Games

318-425-4382 LOADSTAR BBS

LOADSTAR's BBS is a 2400 baud 24 hour per day BBS. It exists primarily as a means for our customers to keep in contact with us and for our developers who are not on the Internet to upload or download files in a hurry.

We do not exist as a means to spread PD files and discourage the upload of binary data to the BBS because it takes away time from customers. I rarely validate an upload, which means that if you upload something, it won't be made available for others to download. We offer netmail, network dating, online games and a debate board that's on fire.

The BBS Corner

http://www.thedirectory.org

SiteWatch! Jeff sez check it out!

This is a small portion of what you'll find at The Directory.

What are BBSs and why are they so important?

Interaction with other users!

Bulletin Board Systems (BBSs) are a very important On-Line Service that has been around for over 15 years!

BBSs are Interactive because they depend on the interactions of other users to make them fun and interesting. Bulletin Boards serve many functions such as the following:

•1. Discussion With Other Users

Bulletin boards are centers of chat and discussion. This is done by using "Message Forums", "Message Subs", or "Message Echoes". These messages are separated by topic - and the messages in each "area" are based upon this topic. If you've ever seen Usenet Newsgroups, this is very similar.

Whatever your local BBS calls these message areas, they perform the same function - Talking On-Line with other users in your local neighborhood!

This is not a "live chat" but a way to leave messages for others to read when they log on to the BBS. Read the messages and leave your replies when YOU want to!

Most of these messages by people in YOUR Home Town! Make friends with people with the same interests as you in your town!

•2. A Storage Location of "Shareware" Files

Everyone likes the latest games or the latest utilities - but does not like to pay for something unless they are sure of the product they are buying. Calling BBSs makes it VERY easy to get what you want - and in a hurry! BBSs are like FTP sites, where you can "upload" or "download" files. These files are known as "shareware" files since you can give them a "test run" before you buy them.

•3. A Place To Play Multi-User Games

BBSs have on-line games called "Door Games". Door games are called "Doors" because the game is an add-on to the BBS and the BBS "opens a door" and leads the user in to the game, and then returns them to the BBS when the game is done.

There are MANY BBS door games, one of the most popular is Legend of the Red Dragon by Seth Robinson.

•4. Electronic Mail

Keep in touch with your friends with Electronic Mail. Why use the cumbersome Internet when local E-mail will do just as well for those who live in your town!

About BBSs And The People Who Run Them

For the most part, BBSs are provided by their system operators (sysops) as a service to the on-line world, generally as a "hobby." Many do not charge anything at all and many others just ask for enough in the form of donations or charges to pay the cost of maintaining the system. Sysops pay for the phone lines, computers, modems, and the inevitable costs of keeping the system operating and obtaining new software and hardware.

In addition, it is important to note the incredible amount of TIME that most sysops devote to their BBSs, making your online experience as enjoyable as possible.

When using a BBS you are a "guest" in the sysop's home, albeit electronically but still a "guest." As such, it is important that you treat the sysop and the other users of the BBS with extraordinary courtesy and kindness, even when, at times, the sysop becomes upset with you for some reason. Do as the sysop asks as it is his/her system. If you don't wish to do so, be considerate and leave the system voluntarily and permanently.

If you like what the BBS offers and use it regularly or plan to, consider making a donation to the sysop to help cover the expenses. Maybe you can donate a piece of equipment (such as a better modem) or even invite the sysop to dinner or to some other activity once in a while. There are some sysops who will not accept your offers but it doesn't hurt to try anyway. At the very least you can send the sysop a card on special days, such as their birthday or on holidays when cards are generally given. An occasional gift may also be appropriate.

If the BBS offers files for download, be sure to "upload" good usable files for others to download. Don't take without giving!! Be a considerate BBS user.

When logging into a BBS for the first time, give your real name and other identifying information when requested. The sysops need this information to properly manage their systems. BBSs come and go like clockwork. Many "go" due to the inconsiderate actions of some of the users. If you want your BBS to stay, make the sysop feel that you appreciate his/her efforts. Working together we will have many more BBSs available to you and others. That is the one of the goals of The BBS Corner

The BBS Corner is a service of DIAMOND MINE On-Line of Fredericksburg, Virginia USA

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For more information, E-mail the webmaster of the BBS Corner at:
dmine@monumental.com
David Perrussel

that the modems/interfaces use to signal the end of a complete byte.

6-5 Word Length. Setting this to 00 designates 8 bit word lengths. This simply means that the SwiftLink will move a full byte at a time, and this is what we'll use. 01 is used for 7 bit words, 10 for 6 bit words, and 11 for 5 bit words. These other word lengths are seldom used.

4 Receiver Clock Source. Setting this to 0 allows one to use an external receiver clock to drive the speed at which the modem operates. This may have uses to some, but we'll set this bit to 1, to use the internal baud rate generator.

3-0 Baud Rate Generator. This allows you to set the speed you want the SwiftLink to run at. 0101 is 300 BPS, and what we'll use.

Each increment is a higher speed. 1000 is 2400 BPS, 1100 is 9600 BPS, and 1111 is the maximum a SwiftLink can do, 38400 BPS.

Do a POKE SW+3,26 if you have a SuperCPU. This will allow you to operate at 4800 BPS.

```
100 GET A$
110 IF A$<>"" THEN Z=1
```

Simply gets the user's key press, if any. If there is one, set a flag, as we'll need to send the character out the SwiftLink.

```
120 S=PEEK(SW+1)
```

SW+1 is the Status Register. This allows you to see the status of the 6551 and its functions. Each bit in this register has its own meaning:

7 Did an interrupt occur?
0=No, 1=Yes

6 Shows the status of DCD (Data Carrier Detect).
0=connected,
1=not connected.

5 Shows the status of DSR (Data Set Ready). 0=low, 1=high.

4 Transmit Data Register Empty. 0=byte waiting to be sent, 1=empty, available to send a byte.

3 Receive Data Register Full. 0=not full, empty, 1=full, waiting to be read.

2 Overrun Error? 1=yes, 0=no. If a byte comes into the 6551 from the modem, and is not read before another one comes in and overwrites the first, an overrun error occurs.

1 Framing Error? 1=yes, 0=no.
0 Parity Error? 1=yes, 0=no.

```
130 IF (S AND 8)=8 THEN R=PEEK(SW) :
PRINT CHR$(R);
```

If the Receive Data Register is full, then get the byte. Location SW (Transmit and Receive Data Registers) is a dual-use register. Read it, and you get whatever is in the one-byte receive buffer; write to it, and you place a byte to be sent in the one-byte transmit buffer. So R=PEEK(SW) gets the byte. The rest of the line assumes the byte is an ASCII character, and just prints it out. Note that no true ASCII to PetASCII conversion is being done.

If this were a more full-blown terminal, we would want the conversion done. This is just a quick and dirty example program.

```
140 IF (S AND 16)=16 THEN IF Z=1
THEN POKE SW,ASC(A$) : Z=0
```

If the Transmit Data Register is empty, and if there was a character read in back in line 100, then poke the numerical value of the character into the Transmit Data Register, and clear the flag for next time around.

```
150 GOTO 100
```

Do it all again :)

Run the program, and try a few commands:

ATZ will reset your modem. You should get the response "OK". ATDTxxxxxxx where the Xs are a phone number will dial that number on a tone phone line. Type ATDP if you have a pulse line. You should hear a dial tone, and then hear your modem dial out.

To make a truly useful term program, assembly language has to be used. But there is nothing wrong with hacking around in BASIC, particularly if you have a SuperCPU, to experiment and learn in a more friendly environment. Also, interrupts really should be used, especially to read the incoming data. The SwiftLink will cause an interrupt (either NMI or IRQ, you choose with the switch on the cartridge) whenever a byte comes in, which you can then handle.

The common thing to do is to add the incoming byte to a queue, and allow your main program to read from the queue at its leisure. A 256 byte buffer makes for an easy implementation. For transmitting, interrupts seem pretty cumbersome.

Have fun, and please, let me know what you'd like to see articles on. BBGRAM? Demo coding tricks? Assembly tutorial? Making games? Disk drive programming? I'd like to hear from you, either through Jeff, or e-mail me: macbeth@tbaytel.net

Optimizing Code For Speed Versus Size

By Jeff Jones. Who says bigger is slower? Sometimes when speed demands it (or when I only think it might), I might duplicate subroutines instead of JSRing to them, and make a long block of code that doesn't include the logic necessary to branch or loop.

How much time does branching and looping add to your code?

Consider a simple screen save routine. The following pseudo codes demonstrates how it's done:

```
stash ldy #0
- lda screen,y
  sta screenstash,y
  lda color,y
  sta colorstash,y
  lda screen+$100,y
  sta screenstash+$100,y
  lda color+$100,y
  sta colorstash+$100,y
  lda screen+$200,y
  sta screenstash+$200,y
  lda color+$200,y
  sta colorstash+$200,y
  lda screen+$300,y
  sta screenstash+$300,y
  lda color+$300,y
  sta colorstash+$300,y
  iny
  bne -
```

That's 53 bytes of code that copies 2048 bytes of data from screen and color memory to another buffer. Very simple. You probably couldn't get simpler than that. In fact fixing it so that it would copy only the required 1000 bytes would require more logic or two loops. In the best of circumstances one pass of the shorter code would take 76 cycles. Not bad eh? But wait – there's more! We have to do 256 passes to copy 2048 bytes so that's 76*256 or 19456 cycles. That's 19.4 milliseconds on a stock C-64. Way faster than a gnat's sneeze. Pretty fast.

But let's go crazy and make this code even bigger by limiting the range of the loops:

```
stash2 ldy #0
 - lda screen,y
   sta screenstash,y
   lda color,y
   sta colorstash,y
   lda screen+$80,y
   sta screenstash+$80,y
   lda color+$80,y
   sta colorstash+$80,y
   lda screen+$100,y
   sta screenstash+$100,y
   lda color+$100,y
```

```
    sta colorstash+$100,y
    lda screen+$180,y
    sta screenstash+$180,y
    lda color+$180,y
    sta colorstash+$180,y
    lda screen+$200,y
    sta screenstash+$200,y
    lda color+$200,y
    sta colorstash+$200,y
    lda screen+$280,y
    sta screenstash+$280,y
    lda color+$280,y
    sta colorstash+$280,y
    lda screen+$300,y
    sta screenstash+$300,y
    lda color+$300,y
    sta colorstash+$300,y
lda screen+$380,y
    sta screenstash+$380,y
    lda color+$380,y
    sta colorstash+$380,y
    iny
    bpl-
```

Okay! Now we have a routine that's 100 bytes long. Is it slower or faster? In the best of circumstances one pass of the shorter code would take 148 cycles. Not bad eh? But wait – there's more! We have to do 128 passes to copy 2048 bytes so that's 148*128 or 18944 cycles. That's 18.9 milliseconds on a stock C-64. Gosh, just a tad faster!

Now imagine an extremely verbose routine like the following:

```
stash3 lda screen
    sta screenstash
    lda color
    sta colorstash
    lda screen+1
    sta screenstash+1
    lda color+1
    sta colorstash+1
    lda screen+2
    sta screenstash+2
    lda color+2
    sta colorstash+2
    lda screen+3
    sta screenstash+3
    lda color+3
    sta colorstash+3
    :
    :
    .; 1992 lines snipped
    :
    :
    lda screen+999
    sta screenstash+999
    lda color+999
    sta colorstash+999
```

This code is optimized to copy only the 2000 bytes needed, but this code would be a whopping 12,000 bytes long, just to move 2000 bytes. Comparing this massive chunk of code to the previous two, which would be faster? The compact and slick 53-byte loop or the burgeoning 12,000 byte monster? Well the 12,000 byte routine would take a mere 16,000 cycles to execute, taking 8 cycles to load and stash each byte. It uses faster stashing (by one cycle) since there's no Y indexing, and no looping, branching or the extra logic (1024 times) to see if it even has to loop. That's about 16 milliseconds to execute.

So we see that we've gone from 19.5 milliseconds with the shortest code to roughly 19 milliseconds with the wider loop to 16 milliseconds with no loop and the largest code.

We wouldn't write code like this for a screen stash. Nineteen milliseconds is fine for popping up a screen. Doing it 38% faster in this case or even in half the time wouldn't be humanly noticeable. But imagine the same type of optimization in a routine that's called thousands of times, maybe hundreds of thousands of times while your user feverishly clicks at a joystick. You'll want to save every cycle.

If you're writing complex math routines say for a graphics program, you might want to spread your code out just like this and create huge but faster code. You might duplicate and place in-line repetitively called routines instead of JSRing. The JSR and the RTS add up to 12 cycles each call. If you make 32,000 thousand JSRs in say a Mandlebrot program, you're spending 384,000 cycles, just getting back and forth to your routines. During this time no work is getting done.

Writing optimized code for a Mandlebrot program might be much larger than could fit in a C-64 — or would it? Mandlebrot Microscope, published on LOADSTAR, used bulky but effective pre-calculated ML arrays to speed its job.

Say you have a CMD SuperCPU with a 1-16 meg RAM expander. During program setup you algorithmically generate incredibly verbose code in high memory that glides through the work with little or no logic, looping, JSRing or RTSing to hinder it. Instead of your Mandlebrot program running 20 times faster than normal code, it's running 40 or 50 times faster!

The official term for creating manual loops is called **rolling out loops**, and it's almost always faster, even in BASIC applications where you write out a zillion lines of BASIC instead of typing FOR I=1 TO A ZILLION : NEXT.

Duplicating subroutines for the sake of saving the cycles used to call them is called **in-lining**.

Perhaps you want to plot with a

LOADSTAR Geos Software

Geopower Tools: 19 Geos utilities: Calendar Printer, Fast Format, Geo Fetch (grab any portion of a screen as a Photo Scrap), Phoenix (resurrect a trashcanned file), Programmer's Calculator are just a few of the handy tools. Side Two is filled with Clip Art (in Photo Album format) and fonts. **$10.00** (C-64/128) Item **#080525**

Clipart!: LOADSTAR presents a huge GEOS collection of clip art and fonts. Some of the GEOS art that has appeared on LOADSTAR, as well as some great files from GEOS fanatic Dick Estel, are available on twenty 5¼ inch disks or eight 3½ inch disks. Most of this has never been seen before! Use these graphics in your GeoPaint, GeoWrite and GeoPublish documents or convert to FGM with FGM utilities. Spiff up your GeoFAX documents with the appropriate graphic every time! Prices are $20 for any two 3½ inch disks, or any five 5¼ inch disks. You can purchase the whole collection for $75 for either version.

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Disk 05 Fonts: More than 30 fonts from past issues of LOADSTAR, plus articles on creating fonts. Two ready-made headers for use with your own documents, one a picture of a mail truck; the other reading "from the desk of" **#0016D5**

Disk 06, 07, 08 geoPaint and photo album files with the great clip artwork featured on past LOADSTARs includes geoCurmudgeon, Animalia I and II, Australian animals, valentine art and many more **#0017D5, #0018D5, #0019D5**

Disk 09 Goodykoontz files: Jasper Goodykoontz, born in Indiana in 1855, produced Goodykoontz's Perpetual Calendar and general reference manual (a book for the millions). This disk includes scans from the book of a wide array of subjects gestures and attitudes, poultry, craniology, and more. **#0020D5**

Disk 10 Old west: scanned artwork from Dick Estel's FRD software mostly woodcut style art of the old west, gold rush days and pioneer scenes. **#0021D5**

Disk 11 J. Needy art/animals: Jennifer Needy works with a wide variety of subject matter and materials. Some of her favorites, scanned into geoPaint format. A collection of scanned artwork of animals from FRD software **#0022D5**

Disk 12 Holiday: Artwork for New Years, Valentine's, St. Patrick's day, Halloween, Thanksgiving and Christmas **#0023D5**

Disk 13 People/faces: Scenes of people and faces from FRD software **#0024D5**

Disk 14 FRD classics: Dick's choice of the best of the FRD collection **#0025D5**

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Disk 20 Seasonal and holidays: a clip for any occasion **#0031D5**

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Entire collection on 3½-inch disks item **#0018D3** $75.00

The 3½" disks are roughly equivalent to two and a half 5¼" disks.

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Disk 3: Equals disks 5, 8, 7B **#0011D3**

Disk 4: Equals 9, 10, 11A **#0012D3**

Disk 5: Equals 12, 13, 11B **#0013D3**

Disk 6: Equivalent of Disks 14, 15 and some bonus files not on 5¼" disks **#0014D3**

Disk 7: Sports, Office and school, Music **#015D3**

Disk 8: Music, Holiday and Seasonal **#016D3**

For your convenience, GeoViewer is included. GEOS 2.0 suggested.

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drawing program. Instead of a general plot routine, you might find that eight or maybe even forty separate plot routines will give you faster operation because sectioning your code eliminates tons of logic. Combine that with in-lining and you have more speed, but perhaps not enough memory to run your code. Again with the expanded SuperCPU, completely optimized, rolled out, in-lined verbose code becomes extremely palatable, even if it ends up generating a hundred kilobyte routine or more. The user won't notice your algorithm creating the monster code. They'll only say, "Man this guy's program is twice as fast as all the rest!" Plus if you use native instructions you may squeeze out extra speed. Careful though. A single 16-bit instruction might replace four ASLs, but take longer to execute!

4-Skan Scans From Your Print Head

By Ben Johnson. Ten years of development is all it took to bring the 4-skan Digitizing system to its present form. Along the way we learned a lot about programming and even more about printers, including some things their consultants said couldn't be done. The system. includes scanning device hardware, and programs on 5.25-inch disk. The hardware connects to the C64/128 USER PORT and your dot matrix printer via a signal conditioner and a fiber optic link which is fastened to the print head. It's carried across the platen to sense the light on artwork held and conveyed there.

The hardware module pre-dated home computers by a few years, being developed to turn pocket calculators into Ohmmeters, Light meters and the like. When the Timex came along and we discovered the power of machine code counting routines, we adapted it to these and subsequently to the C64 for the same chores and more like music using the 64's sound capabilities. We still sell a module for these effects and others, such as a frequency counter and surveillance device, customizable in BASIC for the customers' unique applications.

"Scammodore" was the first photo-digitizing system, which used the module with a photocell mounted on a typewriter to scan artwork manually and subsequently print the saved file via dot matrix printers.

Despite discouraging news from consultants, we discovered how to set up dot matrix printers to "step-and-repeat" automatically over artwork on the printer platen and eliminated the typewriter. We also advanced from keyboard graphic half-tones to a variety of bit-image tones, ultimately allowing the user to customize his own patterns.

Our results may be superior to other scanning schemes in that hard copy proportionality is maintained so that printouts don't look squashed" as with the Scanntronik video Digitizer. In addition, we've been able to produce acceptable multi-color printouts on even monochrome printers with separate color ribbons for each pass.

A most pleasant discovery was that we had some really sharp customers with whom we could work for further customizing. Indeed, this led us to include the BASIC source code with full-feature orders so that customers could play with their own designs using their own expertise. Ken Robinson exemplifies the ultimate in successful work along these lines, extending our efforts into Koala and other formats, as well as more color effects.

4-Skan is available for $69.95 (your own printer required)
Kaltek/Orders
Box 971
Adjuntas, Puerto Rico
00601-0971

What's All The Hoopla About On Usenet With Those Two Editors Squabbling Online?

From: Phil Hoff
<phoff@ecst.csuchico.edu>
Jeff, this is a copy of something I just posted to comp.sys.cbm.

Subject: Whipping boys.

It seems to me that there must be some people in this newsgroup with a deathwish. IMHO, if it were not for Jim Brain, CMD and LOADSTAR, Commodore 8-bit would be as extinct as a dodo today. Yet I've recently seen a spate of CMD trashing here. And now we have had a slam on Jim Brain (which I didn't read), and some responses which I felt were lukewarm in their support for the most part. Isn't anyone going to trash LOADSTAR? (Thanks to Jeff Jones for his forthright support of CMD in a recent issue of the LOADSTAR Letter.)

To whoever it was that made the snide remark about Jim needing to have his ego fed (or words to that effect), please be advised that that is not the purpose of this posting. If it has that effect, then hurrah! I just want to say give the man credit for what he has DONE. If Jim were to abandon his efforts on behalf of Commodore 8-bitters, it would be more than sad in my book. It would be a disaster.

Jeff: I read the goings on in comp.sys.cbm. and I agree that the attacks on Jim Brain are uncalled for just as last quarter's all-out assault on CMD was uncalled for. As far as I'm concerned, Jim is a powerful organizing force in the 8-bit community, providing what the web is all about — *information* for C-64/128 users.

There seems an almost American tendency to despise and distrust big corporations. Though CMD isn't a big corporation, they are the biggest business in Commodore and take their lumps from Internet combers who don't want to spend any money at all on Commodore. They say they love Commodore, but refuse to invest at all and trash anything commercial. They use PCs, too, and trash Windows, mainly because it's commercial and they prefer the knockoffs. I must admit though that I can't figure out why people would want to blast Jim Brain, who doesn't want your money at all. Jim was clearly hurt by the attack. Here's what little I caught of it: Jim made a formal announcement of his new web site and services, very similar to the one we ran in a recent LOADSTAR Letter. Mike Gordillo responded publicly with a tongue in cheek post. I honestly don't believe that Mike sought to hurt Jim, but the repercussions will echo through Usenet for a while:

"A quick overview of "Paper-Tiger Corporations"

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Prelatore Signi : XmikeX
Signi Prelatore : XmikeX

Although not unique to comp.sys.cbm, this article will attempt to average various "Paper-Tiger Corporations", or PTCs for short, into a profile for the edification of the members of comp.sys.cbm Please note that all references to C64 apply to all Commodore 8 bit computers as a family of products. Just what makes up a PTC and its members?

Interesting question, on comp.sys.cbm it seems that the majority of the PTCs revolve around "the founder". A PTC founder is generally one individual, male, between 21-28 years old, whose main (and usually, only) source of income is derived from employment not related to his PTC. A PTC founder most likely grew up during the true heyday of the C64 et al., and was a probably side-participant in C64 circles. As time moved on, most of the true giants of C64 also moved on. The ensuing power vacuum, decreased user base, and paradoxically - vastly superior telecommunications of the present day, have allowed PTCs to achieve some status as credible agencies. It is noted that several PTCs are chasing the dream of Apple Corp's, Microsoft's, and Netscape's rise from ab-so-lute-ly NOTHING to the compu-giants of today.

But those were once PTCs, so how does a PTC achieve credibility and status?

It is said that it's better to be lucky than good. In the case of those mega-entities, that would seem to be the case. However, in answer to your question, a PTC achieves true credibility (and then is no longer a PTC) if the following conditions are met :

a) The PTC is no longer dependent on comp.sys.cbm "press releases" for "advertisement".
b) The PTC no longer labels its posts to comp.sys.cbm as "press releases".
c) The PTC no longer resorts to announcing non-existent products or services.
d) The PTC actually sells a marketable service or physical good.
e) The PTC's gross income is sufficient to economically sustain its employees' and the PTC itself.

Ok, so most PTCs have a difficult time establishing credibility?

That's a bit harsh but most have -0- credibility in my eyes, especially the ones that insist on announcing phantom products. The amount of vapor from some PTC "press releases" can put even a London fog to shame. However, PTCs do establish some viability with the comp.sys.cbm public. Usually the simple fact that a post has been let loose on the newsgroup is quite a reliable indicator that the PTC exists. There is a dearth of non-PTC concerns in the C64 realm and so "news" from a PTC is welcomed and regarded as a positive sign of "activity". "Activity" is the main reason that base PTCs make heavy use of the "We" pronoun in their "press releases", when in reality, the entire body of the PTC usually lies within one "employee", the founder. Unfortunately, the use of the lesser pronoun, "I", would be an injustice for the "press release". The PTC is attempting to win the favor of the public and establish itself as a "player". PTCs believe that they cannot surpass themselves if they freely admit that most of their internal structure is based on -one- "employee", perhaps a few questionable tax forms/charter, an Internet site/account, and a lot of smoke. :)

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"We put the 'We' in P.T.C."
–
I Do Hope the HUMOR in this post is not lost on anyone. Flames to /dev/null
Boring anti-spam .sig follows...
–
Pursuant to US Code, Title 47, Chapter 5, Subchapter II, 227. any and all nonsolicited commercial E-mail sent to xmikex@eyrie.stanford.edu or xmikex@eyrie.org is subject to a download and archival fee in the amount of $500 US. E-mailing denotes unconditional acceptance by both sender and any organization represented in the aforementioned nonsolicited commercial E-mail. --- "By US Code Title 47, Sec.227(a)(2)(B), a computer/modem/printer meets the definition of a telephone fax machine. Sec.227(b)(1)(C), it is unlawful to send any unsolicited advertisement to such equipment. Sec.227(b)(3)(C), a violation of the aforementioned Section is punishable by action to recover actual monetary loss, or $500, whichever is greater, for each violation."

Jeff: This resulted in the following response from Jim Brain and a sizable debate followed, which you can still dig up at www.altavista.digital.com if you search on the usenet for Jim Brain or xmikex.

Re: ANNOUNCEMENT: Formal Introduction of www.jbrain.com
From brain@mail.jbrain.com (Jim Brain)

Before you read this response posting, I would like everyone to know that I am posting this publicly as well as sending a personal copy to Mike Gordillo. Initially, I was going to simply send Mike a personal note, but I feel I deserve to use the public forum to state my opinions about postings I read as much as everyone else. I would warn readers that I am going to write to address Mike mostly in the letter, but my comments to him are valid for readers of the newsgroup. As well, I will respond to other in the response besides Mike. I would also caution against simply moving on to the next message, for reasons I will state below.

Mike, I want you first to know that I was very hurt and am very angry over the posting, which you so found so easy to post to this newsgroup. Your little disclaimer at the end stating that is a joke does not in the least bit change my feelings. Saying hurtful things about something or someone is never a joke, and those who label it as such will find their friends leaving. I want you to understand the level of anger which you have instilled in me. I have been on vacation for the last week, and I came back to find this in the newsgroup. I was so angry when I first read it, I couldn't do anything else that evening, I was so mad I did not sleep much last night, and I have tried to read it twice today, with similar results. My wife is upset at your posting, and she has only noticed my reaction to it. You probably are thinking that I should just chill at this point, but I want to tell you something about this post.

I take personal offense to this posting because it is a follow-up to my posting and discusses companies, of which I own one. Readers get the impression that I and my corporation are superficial because you said so, and it definitely doesn't put me in a good light. I again state that the trailing disclaimer does not erase the hurtfulness of this posting.

Reading this message, I gather that you feel that I am simply trying to gain credibility by issuing press releases and trying to parlay those into free advertising for my business.

Let me tell you something. I have credibility. Obviously, you don't think so, but I could care less. I don't need to advertise for credibility. I sure wouldn't advertise for it in here. People like you just make snide postings like the one I am responding to. There are more sane places to do such things.

Another thing, Mr. Legal Beagle. Did you ever consider that there REALLY is a Brain Innovations, Inc. that manufactures and programs embedded controllers for a side living? Did you also possibly consider that I incorporated to alleviate legal liability problems if one of my designs does harm to a company's

system or network? Hmmm?

Since you are so adept at law, maybe you also simply forgot that if all members of a corporation are officers, then suits can go after assets owned by all board members, which is why my wife (the other owner and operator of the business) is not an officer, but performs as secretary for our once a year meetings. It must have slipped your mind.

Before you respond to my posting and imply I am PTC, as you so deftly call businesses like mine, did you check to see if I has actually incorporated? Did you check on my Federal Tax ID number? Did you ask for my Michigan articles of incorporation? I must have missed those e-mail messages....

Let me ask you if a person wanting to simply "advertise" and achieve "credibility" would obtain a corporate seal, register with the state of Michigan, retain a CPA and Attorney, handle its common stock, register with the state of Nebraska, file articles of incorporation with both states, and pay for the 3 required newspaper advertisements in the Omaha World-Herald stating nature and location of business and send a notarized copy to the state offices in Lincoln, NE? If you still think I am a PTC, let me tell you I could have done far better things with the various fees and registration costs, quarterly IRS reports, and other payments if all I wanted was to be "noticed".

Let me also tell you I don't want to be another Apple or Microsoft. However, I did want to be active in a nice newsgroup with people who appreciate my devoting my spare time to Commodore resources. No, I don't currently sell much in the way of Commodore, but nowhere did I see that you had to sell stuff at all times. All companies give things away for the betterment of community.

Since I like Commodore computers, I thought I would allow my company to provide free resources for Commodore owners like yourself. I don't operate BII to make money off CBM user's. One would think that you would like that, but it's obvious, when a company gives things away, someone has to spoil the fun for everyone.

Also, I hardly think you can write such a allegorical statement about inflated persons, since you edit a magazine that contains its own articles of being, bylaws, and constitution in each issue, which I am sure all the CBM people just love to get OVER and OVER. As well, how do you explain that I at least obey the rules of netiquette by making posting easy to kill in killfiles, mark specific postings with preface words like "ANNOUNCEMENT" and "CSWAP", while you flagrantly disobey the time tested rule of keeping signatures to 4 line or less with your 11 line legal disclaimer. What do you think?
As you can tell by now, I really dislike your style of humor. In fact, if you feel as though I provide so little benefit to the Commodore community that you can easily lambaste me in public, without even emailing me to resolve your issues in private, I suppose I should just leave the arena. If I am just a "side-participant", as I evidently was in the "heyday" activity, then I guess I'll just take the stuff I do and go away. Believe me, if your aim in posting this was to chide me into some action, I see one action as almost a done deal.

I'll just take www.jbrain.com (a commercial site that I just paid $350.00 for this month) and move it off to my local hard drive. $350.00 is a big cost for me and I spend that money for the benefit of users like yourself. I could do a lot more satisfying things with that money if this is the thanks I get. Believe me, I would have SOOOOO much free time after I work a regular job, and do controller on the side if I simply quit doing the following things:

- FAQ
- Trivia
- Model List
- Supply List
- Repair List
- www.jbrain.com
- ftp.jbrain.com
- ListServer
- Commodore Hacking
- VICUG
- C= And Swap
- CaBooM!

Hey, I am actually to like the idea. If you feel it wise to post such a follow-up to my newsgroup messages, I should probably take a hint and leave.

My point: I sacrifice a lot of time and money to provide things for this group of people (including yourself) and I ask nothing in return than a note every so often saying that people enjoy what I am doing. Even comments like Colin's above I can live with. However, if I get no satisfaction out of doing this, I'll stop in a heartbeat. Mike, in your haste to publish your own composition and your failure to determine the appropriateness of your posting, have moved me closer to simply saying "I don't need this in my life" than you will EVER know. If you think this is an idle threat, think again. Free time is looking more and more inviting to me everyday. The company can ill afford $350.00 for a resource that return no monetary benefit.

I should probably let you know that you aren't the only one. Anytime someone publishes something critical of me (explicitly, or in your case: implicitly), it moves me closer to this course of action. It's the same as when Marko Makela retorts to my trivia (that I do for free) that " Jim is wrong" or "Jim shouldn't ask questions he can't answer". That really makes me mad. He claims it his Finnish, or whatever, but I have other Finnish friends that can tell me I am not correct without insulting me.

You must realize that the only joy I get out of doing these things is the response I get. If it's nothing or good, I am happy. If it is negative, I am that much closer to the door.

Another thing. I gather from your composition that you have been around for a while. If so, how come I don't remember you when Jim Butterfield was a regular poster here, when Rob Knop hosted the original US FTP site, and when I was jlb31348@uxa,cso.uiuc.edu? Where were you when Craig Taylor told folks that he was quitting as editor of Commodore Hacking. I didn't see you step in and offer your editorship? Did you? No, you didn't. Either you weren't around then, or you didn't want it. In light of that, it make me very upset that now Commodore Hacking has to compete against DisC=Overy for articles?
Contrary to your view, this CBM world is NOT big enough for two technical rags. I would have gladly given editorship to a person who wanted it, since I took it over because I didn't want to see it die. If I am forced to compete against your mag, I'll probably lose, and Commodore Hacking will be no more. That's a shame, but I wonder if you ever thought of that? Did you. Do you care? Does anyone. It angers me to have to carry a torch no one else wants to carry, and then have people like you try to blow it out? Did you ever stop to find out what I thought? The irony is that when I voiced my concerns to your e-mail address, I got a FORM reply, sounds like a Paper Tiger Publisher to me..... (Again, those in glass houses...)

Did you EVER stop to think that I might have created the press release for a good reason. Did anyone. Did anyone possibly surmise that I might have simply created one for CMD for Commodore World as per their request, and simply

used the same text file in the newsgroup? Did anyone stop to think that maybe it isn't YOU all I am trying to impress, but am trying to cast a light of professionalism and activity on a computer system that many view as dead? Didn't think so. When Mike Gordillo (you know, it's not a sign of being a PTC owner if you use your own name of a part thereof instead of XmikeX) has talked to as many newspaper reporters as I have, then maybe he will see the point in creating a semblance of sanity in this Commodore arena, rather than kid anyone who attempts to revive this platform. If you think I am just way off base, go search DejaNews or Alta Vista for this posting. That's what news reporters do, and they search for press releases and announcements....

Maybe it won't get us very far, but I don't see Mike Gordillo on the June 1995 edition of USA Today, or Mike Gordillo's WWW site mentioned in Internet Underground this past month? Do you have any IDEA what that kind of exposure does to our platform? If you think this potential act of advertising on my part to editors and magazines adds credence to your case. In actuality, I only posted it because I made it up for CMD, but the other benefits are not to be frowned on...

Mike, I am simply angry. I can stand by and let CMD get bashed by folks in the newsgroup, even though I operate a similar business and charge high prices as well. They can take care of themselves, and they have decided to lay low while everyone rants about them. That's fine. However, YOU are NOT my customer, and if people in here continue to poke me like this, I'll leave, like your "true giants" of the newsgroup moved on. Ask Jim Butterfield why he doesn't post anymore.... I have. Have you ever ever talked to him? I have. Does it matter? Yes, it does. Do I write such compositions and label them as humor? No, I don't, because this kind of humor only makes people mad. Are there any examples of a PTC in this newsgroup? I don't think so. Maurice Randall and his corp don't post here, Arkanix Labs actually sell stuff, Cameron Kaiser and his corp derives his revenue from his CWI, and I don't sell at all in here.... I wonder why you chose to follow-up to MY post, unless you just wanted to make me so mad I would think very seriously about pulling the plug.

In closing, let me respond to your last few lines of your crafty article:

the public and establish itself as a "player". PTCs believe that they cannot surpass themselves if they freely admit that most of their internal structure is based on -one- "employee", perhaps a few questionable tax forms/charter, an Internet site/account, and a lot of smoke. :)

I don't want to surpass myself. I freely admit that I am one of two employees, I am the main engineer, and I don't see any shame in that. I dare you to obtain my charter and tax forms and pronounce them questionable. However, if you think I am going to give them to you now, forget it. Call the NE state office or the MI office. Let me warn you that the NE papers aren't finished yet, so they may not have them. MI has em, though. As for my Internet site, do YOU pay $350.00 to obtain a commercial account with 50 MB of space, a FTP site, listservs, Secure WWW, and multiple T1's?

Do you know of any so called "PTCs that do? Loose Lips Sink Ships, and mine of hovering just above the water at present.

It sickens me to find out that you consider my company with such little regard that you would make fun of it with so little thought. As for others that read this, I apologize for this, but I am NOT going to stand by and watch people just put me and my business down. My hope is to grow it into a self standing enterprise, but I can tell that I won't EVER target CBM owners. If anyone cares about my stuff, then I would heartily suggest you tell me, as at this point, saying nothing isn't going to cut it. I remember when I was in school and we were all punished for something one person did. Well, I suggest you thank Mike the way we "thank"ed the person at school. I simply won't stand here and let this happen to me and my business. I have enough stress in my life. It's ironic that I thought everyone here appreciate my attempts to elevate the Commodore plight to newspapers and magazines. It's obvious that not everyone cares.

As for you Mike, I would like an apology. I think you owe me one. This was most uncalled for, even if you didn't even mean it to refer to me or my company. My Christian beliefs mandate I forgive you, but at the level of anger I am at now, it will take a while.

If someone is laughing at this point, I assure you I am not bluffing, and maybe it'll take me leaving to let everyone know that I probably did provide at least something of value. I don't profess to be the master of all that is Commodore, but I thought I did my part....

I'm done. I'm still mad, and I am going to TRY and forget I ever saw this.

What The..? Somebody Call The Patent Police!

From: R. T. Cunningham
<wanderer_rtc@pipeline.com
Newsgroups: comp.sys.cbm
Subject: Re: SUPERCPU for $75 US!! PLEASE READ!!
Date: Sun, 15 Jun 1997 04:39:52 GMT

On Sun, 15 Jun 1997 00:53:43 -0400, NATAS wrote:

Can it be true?? Yes!! I have successfully reverse-engineered CMD's Super CPU and will sell the schematics/parts list for $25. The parts cost me under $50.. please e-mail NATAS_CCS@xxxxx.COM for further details. Still DEAD weight of the Demoscene. Natas of CARCASS and CHROMANCE

Great! Another butthole trying to hammer another nail into Commodore support. Not only has he hacked the unit, but he's selling schematics!

Jeff: Right, Wanderer. Maybe it's because I know the guys at CMD, I dunno, but I would never do such a thing and then brag about it in public. CMD put many thousand dollars into the SuperCPU and they didn't do it so that some dead head could come behind them and steal their ideas. Anyhow, according to Doug Cotton, "If anybody thinks they'll get a working SCPU based on this, I wish them a lot of luck. Assuming that it is even correct, the reverse-engineered schematic alone won't do much good when the circuit contains custom programmed chips (which ARE protected by copyright). A good technician could probably spend 15 to 20 hours hand wiring a board from the schematic, but in the end it would be completely useless without the custom chips which you can only buy from CMD with an exchange of the originals.

2000 Reasons To Use Bcopy

From: Dick Estel
<DickEstel@worldnet.att.net

Jeff, you wrote on issue 156 "that the year 2000 will affect no one in the Commodore community." There is at least one area where Commodore users will indeed have trouble with the year 2,000. This is backing up files from a hard

drive (and probably other CMD devices) to floppy disks using Fcopy. You can select all files after MM/DD/YY, to quickly copy only the files you've worked on since the last backup. On 01/01/00, every file on the drive will be seen as later than that date. Of course, all will be well after you back up everything again, but it seems that CMD could have foreseen this problem, since it was being worked on by the early 90's.

Enjoyed 156 Soapbox as usual. I'm using PC and Commodore, but never on-line with Commodore. I don't have too much trouble sending attached files PC to PC. I'll take your word for it that UUXFER always works for Commodore to Commodore.

What I and probably many others need is some help with PC to Commodore and Commodore to PC. Except for straight text conversions, I have not been able to convert anything from PC to Commodore or vice versa; nor to send it PC to Commodore; and I don't know what to do with files that have been sent to me Commodore to PC. Big Blue Reader does fine with text, but I have never been able to get a usable GIF file from one platform to the other. Is there a method that "always" works? Or a source of how to? Thanks

Jeff: C-64 UUXFER, published on Star Extra #1 and available on the Internet, uses UUencoding, which you can use XFER PRO, WWUO486, or newer WINZIP on the PC side to convert. If you insert the file created with UUXFER into mail and send it to a PC person, their mail program will likely uudecode it for them automatically if they are set up properly.

Of course with Big Blue Reader, there is no need for UUencoding. One thing to remember is that when dealing with binary files such as programs and GIFs, there is no need to translate ASCII<>PET. Doing so will ruin the file. You only want to translate text. Binary files go as-is.

As for the year 2000, I suppose you could catch yourself that way, but I'd probably use MCOPY. I have yet to back up any hard drive partially. Too much of a pain. Here's a story about the year 2000 that I got in E-mail from Dean Esmay.

Year 2000 Parable

Submitted by Penny Pennington. There was once a COBOL programmer in the mid to late 1990s. For the sake of this story, we'll call him Jack. After years of being taken for granted and treated as a technological dinosaur by all the UNIX programmers and Client/Server programmers and website developers, Jack was finally getting some respect. He'd become a private consultant specializing in Year 2000 conversions. He was working short-term assignments for prestige companies, traveling all over the world on different assignments. He was working 70 and 80 and even 90 hour weeks, but it was worth it.

Several years of this relentless, mind-numbing work had taken its toll on Jack. He had problems sleeping and began having anxiety dreams about the Year 2000. It had reached a point where even the thought of the year 2000 made him nearly violent. He must have suffered some sort of breakdown, because all he could think about was how he could avoid the year 2000 and all that came with it.

Jack decided to contact a company that specialized in cryogenics. He made a deal to have himself frozen until March 15th, 2000. This was a very expensive process and totally automated. He was thrilled. The next thing he would know is he'd wake up in the year 2000; after the New Year celebrations and computer debacles; after the leap day.

Nothing else to worry about except getting on with his life.

He was put into his cryogenic receptacle, the technicians set the revive date, he was given injections to slow his heartbeat to a bare minimum, and that was that.

The next thing that Jack saw was an enormous and very modern room filled with excited people. They were all shouting "I can't believe it!" and "It's a miracle" and "He's alive!" There were cameras (unlike any he'd ever seen) and equipment that looked like it came out of a science fiction movie.

Someone who was obviously a spokesperson for the group stepped forward. Jack couldn't contain his enthusiasm. "It is over?" he asked. "Is 2000 already here? Are all the millennial parties and promotions and crises all over and done with?"

The spokesman explained that there had been a problem with the programming of the timer on Jack's cryogenic receptacle, it hadn't been year 2000 compliant. It was actually eight thousand years later, not the year 2000. But the spokesman told Jack that he shouldn't get excited; someone important wanted to speak to him.

Suddenly a wall-sized projection screen displayed the image of a man that looked very much like Bill Gates. This man was Prime Minister of Earth. He told Jack not to be upset. That this was a wonderful time to be alive. That there was world peace and no more starvation. That the space program had been reinstated and there were colonies on the moon and on Mars. That technology had advanced to such a degree that everyone had virtual reality interfaces which allowed them to contact anyone else on the planet, or to watch any entertainment, or to hear any music recorded anywhere.

"That sounds terrific," said Jack. "But I'm curious. Why is everybody so interested in me?"

"Well," said the Prime Minister. "The year 10000 is just around the corner, and it says in your files that you know COBOL".

Unbelievable Call to Spam?

To: Jeff Jones
* We can e-mail your ad to 200,000 AOL e-mail addresses for only $150!!
* This is a special price, marked down from our regular price of $395!
* Our addresses are no more than 45 days old!
* Your ad is sent by itself, not along with any others!
* We do not limit the size of your ad!!

To order the mailing, just complete the following order form and mail it along with your payment of $150. You can send a check or a money order payable to xxxxxxxx. Our address is: xxxxx, P.O. Box xxxxxx, Daytona Beach FL xxxxx.

Jeff: These are the same people who spam me almost daily. I don't know how this E-mail slipped past my defenses because I had my mailer set to delete any mail from their domain. Is there no end? Is there no shame?

Question Of Questions

From: esmay@syndicomm.com
Ponder this: If a man says something in the woods, and no woman is there to hear him, is he still wrong?

Jeff: I dunno, but if a woman falls in the woods and no man was there to make her stumble, is it still his fault?

The Internet For Commodore C64/128 Users Mailing List

G'day! I'm sending this message to those who've ordered The Internet for Commodore C64/128 Users that have sent

me E-mail in the past few weeks.

I wanted to let you know that I've started a mailing list, called "tifcu" for anyone interested in keeping up with the Internet as it relates to us Commodore users. It's also the kind of place where you can ask questions and perhaps others with similar systems can help out as well.

To subscribe to tifcu, send an E-mail to majordomo@hal9000.net.au and in the message type:

subscribe tifcu

Once subscribed, to send mail to the list, the address is tifcu@hal9000.net.au I have not automatically subscribed anyone to the list, as I can appreciate that not everyone would be interested, and I also feel going through the motions of subscribing is part of the learning experience for those not experienced with mailing lists.

In other news, Jim Brain's E-mail services have changed and the ccnga.uwaterloo.ca FTP site is no longer available. The files from ccnga.uwaterloo.came are now available from ftp.jbrain.com - some of the file paths have changed however. I'll post an errata sheet to the tifcu mail list in the next few days with the changes, and list the changes for Jim Brain's E-mail services as well.

Yours in CBMing,
Gaelyne
http://hal9000.net.au/~moranec/tifcu.html

LS Letter Comments

From: e.harler@joesgarage.com (E HARLER)
To: JEFF@LOADSTAR.COM

A couple of belated comments, Jeff, about LOADSTAR Letter.

Although #43 & #44 really held little interest for me, I think they are a great piece of writing and an excellent reference for anyone who is interested in CMD products. Made me wonder whether I should be investing in an FD-2000 and/or a RAMLink.

If you continue the series, I'd like to see something on the scanner. I had written to CMD about it and the publishing program, but never got a response. Since I'm more 128-oriented, I never bothered asking again.

Notice that you usually run the by-line and the first paragraph together. How about splitting them as you did in this example:

The Unofficial CMD SuperCPU FAQ
by Jeff Jones
Q: What is a SuperCPU?
etc.....

In the meantime, keep up the good work. Each issue seems to be slightly better than the previous one, which makes it just that much more difficult for further improvement.

Ed
* OLX 2.1 TD * On a clear disk you can seek forever.

Jeff: What?!? Add extra lines when I'm running out?!? Are you kidding?!?

I will continue the CMD series next month. I got mail from a person who wants to know everything about setting up a CMD Hard Drive. I will do so using The Compleat New and Old Testaments as examples.

Interpreting Decimal From The Screen In ML

By Jeff Jones. I had to write more than 20 blocks of ML code this month for a sector editor called Hannibal Sector. This program included routines that I've never written before such as general undo, undo under cursor, auto byte replace, and decimal number interpretation. I want to discuss the decimal routine here.

The decimal number routine was needed because the program was written in machine language, and I didn't want it slowed by a BASIC input, particularly since it translates to hex and binary as you type. So I needed a way to interpret a three-digit decimal number. How would you do it?

Well, the actual code looks more involved than it is. First I take the hundreds, tens and one place numerals from their assigned places on the screen and store their values. Since a 5 typed on the screen has a value of 53, not 5, I have to subtract 48 from each character. In the code, I subtracted "0" from the numbers. That's an ASCII "0," with a value of 48, which happens to be the same as a screen code zero. the reason I typed "0" instead of #48 was because I wasn't sure of the value of "0" so I let the assembler worry about it.

```
handle'dec lda hundreds
sec
sbc "0"
sta dec'eval

lda tens
sec
sbc "0"
sta dec'eval+1

lda ones
sec
sbc "0"
sta dec'eval+2

lda temp; last number typed
sec
sbc "0"
ldy num'position
sta dec'eval,y; place in
proper denom
```

So if the number on the screen was 124, I now have stored in dec'eval,

```
.byt 1,2,4
```

All I have to do now is multiply the hundreds place times 100, the tens place times ten and then add all three places together. I have a multiplication routine, but I chose an in-line faster custom multiplication routine. The distributive law of multiplication says that:

```
x*100 = x*64 + x*32 + x*4
x*10  = x*8  + x*2
```

In machine language, it's easy to multiply one byte by 2, 4, 8, 16, 32, 64, or 128. A couple of ASLs and we've multiplied. Then we simply add the results.

```
lda dec'eval
asl; times two
asl; times four
asl; times eight
asl; times sixteen
asl; times thirty-two
asl; times sixty-four
sta temp+1

lda dec'eval
asl; times two
asl; times four
asl; times eight
asl; times sixteen
asl; times thirty-two
clc
adc temp+1
sta temp+1

lda dec'eval
asl; times two
asl; times four
clc
adc temp+1
sta temp+1
sta dec'eval


lda dec'eval+1
asl; times two
asl; times four
asl; times eight
sta temp+1
```

(Continued on page 14)

(Continued from page 13)

```
lda dec'eval+1
asl; times two
clc
adc temp+1
sta dec'eval+1


lda dec'eval
clc
adc dec'eval+1
sta actual'number;
;the one byte number
clc
adc dec'eval+2
sta actual'number;
 ;final result
rts
```

This ends the routine. All this to translate three digits into one byte that the computer can understand. It may seem a bit bulky for its purpose, but it's fast. How fast? Well the whole routine takes 167 cycles to execute. That 167 millionths of a second, way less than a millisecond, and that's on a 1 MHz C-64. On a SuperCPU, it still takes 167 cycles, but that's 167 20-millionths of a second or simply 8 millionths of a second.

So you see that when working with machine language, you can splurge a bit and process all you want. That's why I have the routine do instant updates on all three number systems and echo on the track/sector input areas when it has to. I could have had it do twenty more little things while you type without an apparent slow down. It's not a good idea to mix BASIC and ML for multiple tasks like these. Each task ends up fast, but the cumulative effect of being in the slow BASIC domain takes a painfully obvious toll the more BASIC you use.

Think of it this way. The more BASIC, especially BASIC logic, looping, and branching you see in your ML, the closer the speed to normal ML. The ML you see in your BASIC, the closer the speed to ML.

Reason Number 173 To Fear Technology

```
 o     o     o     o     o    <o    <o>    o>     o
.|.   \|.   \|/   //    x     \     |     <|    <|>
 /\    >\    /<    >\    /<    >\    /<    >\    /<
```

Mr. Asciihead learns the Macarena.

Really Stupid People

Police in Wichita, Kansas, arrested a 22-year-old man at an airport hotel after he tried to pass two (counterfeit) $16 bills.

A man in Johannesburg, South Africa, shot his 49-year-old friend in the face, seriously wounding him, while the two practiced shooting beer cans off each other's head.

A company trying to continue its five-year perfect safety record showed its workers a film aimed at encouraging the use of safety goggles on the job. According to Industrial Machinery News, the film's depiction of gory industrial accidents was so graphic that twenty-five workers suffered minor injuries in their rush to leave the screening room. Thirteen others fainted, and one man required seven stitches after he cut his head falling off a chair while watching the film.

The Chico, California, City Council enacted a ban on nuclear weapons, setting a $500 fine for anyone detonating one within city limits.

A bus carrying five passengers was hit by a car in St. Louis, but by the time police arrived on the scene, fourteen pedestrians had boarded the bus and had begun to complain of whiplash injuries and back pain.

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